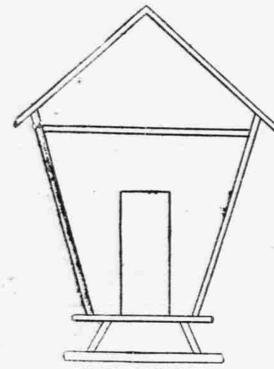


Corn Cribs.

want of safe corn cribs on the farms than by any other neglect to ensure safety from small vermin. Rats, mice and those insects which ravage this grain, will frequently do more damage than would pay the interest on the cost of the best and most substantial cribs to store it in. In the warmer part of the United States there are two species of insects, either of which will destroy a full half of the corn every year by laying their eggs on the grain, and the grubs will eat the grain into holes, several of these holes frequently being found in each grain.

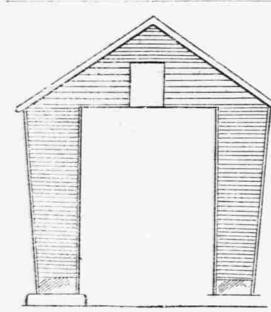
In the first illustration is given a plan of the frame of a small crib to hold from two hundred bushels to as many



SMALL CORN CRIB.

more as may be needed. The crib must not be too wide, and full opportunity must be given for the wind to pass through to dry the ears and prevent heating of the new grain. This crib is set on posts as shown, and is covered on both sides with lath laid length needed. The top of each side should be closed in, as the sides are. It is a bare of vegetable matter. profitable measure of safety to cover such a crib as this inside with fine wire gauze, with such a small mesh as will keep out the grain moths. Where the danger from these does not exist, the quarter-inch wire net will keep out the mice and rats.

The second picture shows a double crib with a driveway between the two sides. The cribs should not be more than five feet wide, so that the air may



DOUBLE COEN CRIB.

pass through to dry the corn thoroughly. The floors of each crib should be made of narrow boards with halfinch spaces between them, and these spaces profested with wire net.

Keeping Teams Busy. One of the bardest tasks of the small farmer is to keep the teams that he is obliged to own busy all times of the year. There are many times, in winter especially, when the weather is unfit for out-of-door work, and then both men and teams are necessarily idle. But if all the good weather is used, the team can be made profitable even during the winter. On a sleigh with smooth track larger loads can be drawn than can be on wagons, and with less labor to both team and loader. Loads of manure can be drawn from cities if a most of this manure, for they contract | the flow of milk, and that the cows year, which most farmers who are as without it. busiest in the summer cannot afford to

Valuable Liniment. Let every farmer when he butchers his beef be sure and save the gall, as it makes one of the most valuable liniments for man or beast. Put gall in a bottle large enough to hold alcohol enough to cut the gall, set in any warm place, let stand three days, shake it a few times, and it is ready for use. Good for burns, cuts or bruises of any kind. If in hot weather, apply liniment at once to the fresh wound. It needs no bandage, as a fly will not come near.

Lump on Jaw. This is a disease peculiar to cattle. It is not contagious and does not affect the milk as long as the cow keeps In good condition. This disease, if not checked sooner or later, affects the trace behind.

teeth, interfering with mastication, TOPICS FOR FARMERS and the animal loses flesh, and in time will die. Treatment: Mix 2 drams biniodide of mercury with 2 ounces Fird and rub on a little once a week; A DEPARTMENT PREPARED FOR also, give the cow 1 dram iodide of potassium in a bran mash, morning and night, and continue it for three weeks.-Orange Judd Farmer.

Agricultural Co-Operation. The Home Industrial Association. with a capital stock of \$10,000, has been organized by a company of Richmond and Wayne County (Ind.) men. The stock is divided into shares of \$100 each, and no member can hold more than one share. The company was organized to test the experiment of cooperative agriculture and horticulture work, and land has been secured, and the work on a dairy and creamery is in progress. Bee culture, truck gardening and the culture of small fruits and berries is to be started in the spring. There is more loss and waste for The promoters of the scheme expect to inaugurate a general system of cooperation, and to start branches in other States, with headquarters in Richmond.

> Slow-Ripening Cheese. The anxiety of cheese-makers to have their cheese come early into market induces them to make a soft porous which consequently ripens early. But expense and after labor. cheese thus made cannot be kept for a long time without having its quality much deteriorated. If a larger proportion of cheese was pressed thoroughly no floor. It is 16x16x10 feet, the walls so as to have a firmer texture, it would keep until times when there is little tween the outside and inside sheeting. good cheese in market, and higher This space is packed with straw and prices could be obtained for it. But the chaff pounded in as closely as possible. firm cheese has so much less moisture than the porous cheese that the price does not pay the maker.

Clover Is Best as Hay. It requires more labor to cut clover for the silo than it does to cut corn, as the gum in the clover stalks dulls the knives and prevents rapid work. The further fact that clover is harder to keep in best condition as silage, and that some dry feed is always needed when clover is fed, ought to be sufficient to decide that the clover growth on a farm should always be fed as hay. the kind of feed to give with ensilage. filled in with sawdust, chaff or straw. must be in a season so cloudy and

Carbonic Acid Gas in Soils. The air in all soils contains a much larger proportion of carbonic acid gas than does that in the atmosphere above. It is largest, of course, in soils that are full of vegetable matter whose decomposition liberates it. This gas has an important effect in keeping mineral fertility soluble. So far as soil is concerned, it is the best solvent known. This is the reason why phosways. The upper part may be used | phate does so much more good on soils as a left for storing a surplus when full of vegetable matter than on a sandy or gravelly soil that is nearly

Keeping Apples. All bruised apples will rot, and it will pay to examine the barrels, so as to discard all that are affected, as a single rotten apple in a barrel will gradually affect the whole. In handling the apples when picking them over care must be exercised not to injure them while so doing. Any apple with a broken skin is liable to rot. They should be kept in a temperature just

above the freezing point. Falling Off in Milk. Many dairymen are disappointed at the beginning of winter because the cows fall off in milk. This is due usually to the sudden change from green to dry food. Any change made should be gradual, by feeding dry food before winter sets in, increasing the dry food daily until the cows are given the larger without its use.

Castor Beans as a Crop. The castor bean is quite commonly planted in many yards for its fine foliage, which produces among our native flowers a fine tropical effect. Even here if planted early many of its seeds will ripen. But in some of the States, as Missouri and Arkansas, the castor bean is planted for its seeds, which are ground and the oil expressed. The plant

requires very rich land to make a suc-

cess of the crop.

To Protect Rose Bushes. Rose bushes should be mulched with 4 or 5 inches of manure, straw placed on the manure, and a few stones used to hold the straw in place. This method will protect the bushes from frost, and the heavy application of manure will enable them to bloom profusedly when the season for flowering arrives.

Cider Pomace, Notwithstanding all that has been

Profit in Potatoes,

The average yield from potao-patch

farming in Philadelphia this year was \$240 an acre. For each dollar expended from \$4.50 to \$5 worth of produce was realized.—Philadelphia Ledger. And They Did Tie Up the Stones. now little planted. In the country it is them will it pay to grind them for feed A country fellow came to London. where a dog came suddenly out of a house and furiously ran at him. The cast at the dog, and finding them all fast rammed or paved in the ground.

lor's Wit and Mirth, 1630. Over 100 persons disappear in London every year without leaving the slightest

OUR RURAL FRIENDS.

Every Farmer Should Put Up His Own Ice Supply-Fall Plowing as a Remedy for Grasshoppers - The Hedge as a Vermin Breeder.

Ice during the heated season of the year is a luxury few farmers enjoy because of the expense attached to keeping refrigerator and dairy supplied. True, it is only a few cents' worth per day, yet in a season the ice bill would far exceed the amount the average farmer could afford to expend. He is kept from putting up his own ice by the notion that seems to be prevalent that an ice house is an expensive affair, and the success of packing a doubtful sequence. This is a mistaken idea. Below we give a description of a fifty-ton ice house and the method of packing the ice which has stood the test and proven both practical and cheap. The house can be of any size desired, this being larger than most farmers require. A good plan is to get several neighbors to put up the buildcheese into which air easily enters, and | ing and pack together, sharing the first

> The building should be situated on ground that is high enough to drain the surface water away from it, as it has made double, with an 8-inch space be-A good roof that will not leak is required; in this house boards with battened cracks will prove all right and much cheaper than shingle.

through which to put in and take out the ice. This is about 21/2x4 feet square and 8 inches in thickness, to correspond | it is difficult to keep them long in good

This should be cramped in as tightly as possible. All the cracks and crevices between the ice cakes should be filled in with pounded ice, making the mass a reasonable chance given it to drain off the little water which comes from it.-Epitomist.

Plowing to Kill Grasshoppers. In presenting helpful and timely against which farmers may have cause to use preventive measures the Michigan station advises as follows:

The best known remedy for grasshopthe eggs. Where this practice can be regularly carried on over large areas the grasshoppers are not likely to become troublesome, but there is always some stump or neglected lane which would be difficult or impossible to plow, or else there is some farmer who will refuse to olow his land, and these lanes and unplowed lots will furnish places for the hatching of enough locusts to infest an entire neighborhood.

about twenty-five or thirty eggs. These pods are made of mucus, which is given out with the eggs during the process of laying and dries down hard, becoming brittle and impervious to moisture. The eggs are thus provided with waterproof covering about three-fourths of an inch long and smaller in diameter than a lead proportion of it. When ensilage can pencil. The pods are concealed in holes be used the shrinkage is less than in the sod in which they were formed. at the upper end, providing a place for the escape of the young locusts. Now if the sod be plowed under most of the egg pods are turned wrong side up, besides being buried so deep that the young locust will never be able to escape. Then, too, many are broken, and moisture thus gains a large proportion of food can be stored the eggs. It is likely also that the plowing the use of ensilage. will expose many to their natural enemies, such as birds, shrews, mice, etc.

A good rolling after the plowing and dragging will pack the dirt so tight that very few will escape. To be of the most value the plowing must be general. No strips along fences, no lanes of any size, and no clearings containing brush and stumps should be allowed to seed the rest

of the farm. the sod under in these places, recourse the bulky food. Variety in feeding may be had to another remedy-viz., poisoned baits. Bran mixed with paris green, ble foods become more valuable by using 11/2 to 2 pounds of the poison to 25 pounds of bran, should be stirred up with water to the consistency of dough, Sometimes cheap molasses is added to make it stick together better. This is made up said of the value of cider pomace as a into small balls and placed about the field. cattle food, but little use is made of The greatest care must be observed for a access, and if it is impossible to completeto take it every month through the need just as much other food with it ly exclude them it is best not to use the

> Hedges as Vermin Breeders. Nobody now talks about the hedge as a cheap fence, though its other recommendation of being permanent unfortunately still holds good. Except for a border around some suburban residence the hedge is a nuisance, and is especially objectionable, as it keeps on growing unless cut back every year or two, and its roots extend on either side,

the worst of all the evils of the hedge around an orchard is that it is sure to be surrounded by tall grass, making the best possible harbor for rabbits, which will go through and strip the bark from apple trees. In most cases, too, the rabbit will strip the bark from the hedgerow trees, thus killing them and

The Habit of Wheat Growth. It is impossible to grow good crops of winter wheat where fall droughts are prevalent. It is only where there are enough fall rains to beat down the tender blades into the soil, and thus check their growth, that the wheat will tiller or spread to either side, getting a firm hold of the soil, and also at the same time sending up side shoots that will make a spreading habit of growth This protection will not prevent the frost from going into the ground, but it will shield it from the sudden changes from freezing to thawing, and the re verse, that are far more injurious that steady cold weather would be. In fact, the wheat grower is never better satisfied than when he finds fall sown wheat frozen in the ground with a light fall of snow over it. If wheat can be kept covered with snow through the cold weather that will prevent cold weather from browning the leaves, and it will come out in spring in good condition to grow. Some wheat growers harrow the wheat in fall, but this bruises the leaves, and coming before cold weather when the wheat plant is dormant, it is too great a check to its growth. Harrowing in spring, if possible before a rain and followed by warm weather, is a much better practice.

Prices of Sugar Beets. Western beet sugar makers are willing generally to pay \$4 per ton for beets that show 12 per cent. of saccharine But one opening is necessary, the door | matter. The pulp after the sweet has been pressed out of it has some feeding value, as have also the leaves. But with the walls of the building. It is condition, as they sour and rot when made like a box 21/2x4 feet, and 8 inches | exposed to air. The rate of 12 per cent. Before packing, fill the bottom of the one rather dry and with much sunroom with about 8 inches, of cinders or shine, beets have been grown that clover is dry and nutritious, and is just foot between the ice and walls to be have been grown on an acre, but it moist that the sugar percentage could not exceed 12 per cent., if it indeed came up to that. Over four tons of beet sugar per acre has been made in as compact as can be. Ice put up in Germany. There land suitable for this way will not melt down a foot in | sugar beet growing brings high prices. the whole season. It will not melt if But in Germany sugar beet growing is the sun, rain and air are excluded, and made profitable by a government bounty on all beet sugar that is exported.

Fow Grass Seeds After Grain. It is a common mistake of farmers in sowing grass or clover seeds with drilled grain to try to sow it as quickly notes on a few of the many insects after the grain is deposited as possible. Many grain drills have been made with grass seed sowers attached, so as to drop the grass seed immediately after the grain drills had deposited the grain pers is fall plowing for the destruction of and while the loosened soil was still falling on the seed. The plea of course is that the grass seed is thus "better covered." It is, in fact, usually covered much too deeply, sometimes not coming up until several weeks later. The truth is that grass seed on cultivated soil needs no covering save what rains, frost and melting snows will give it. Nor is it best with winter grain to sow the grass seed until two to four weeks The eggs are laid in pods containing after the grain is put on the ground. In that way it will grow large enough, and yet will not injure the grain crop the following season.

Economy of the Silo, Good silage that has been well and losely packed in the silo is estimated to weigh about forty pounds per cubic foot, and forty pounds is also about the These fragile little pods of eggs are open ration allowed each cow for one day. A silo ten feet deep and ten feet square will consequently hold 1,000 pounds of ensilage, which will supply two cows over four months. Such a silo is a small one, but the estimate shows what entrance and leads to the destruction of away for winter in a small space by

Variety of Feeding. A quart of bran mixed with a peck of cooked turnips will give better results than when the same proportions of bran or turnips are fed separately, for the reason that the turnips are composed mostly of water and the mixture is more complete as a food, while the When it is absolutely impossible to turn | bran is better digested when fed with conduces to health, and the less valuamixing them with substances that are more concentrated and nutritious.

What to Do with Soft Corn. If there is room under shelter, soft corn should be spread thinly on the contract has been made for it in ad- it. Cows will eat it, but farmers gen- long time after using these baits that no floor, so as to keep it from heating. vance. The market gardeners secure erally believe that it does not increase live stock or poultry be allowed to gain When freezing cold weather comes, it will freeze dry, and may then be ground in the cob with greater advantage than to use in any other way. But there will be a considerable part of the poorest corn that has little corn on it, and which is mainly cob. This can be better given while soft to cattle than fed in any other way. In drying corn cobs. most of their nutriment is lost, and only when there is considerable corn on

The Lady Apple. It is probably the small size of this fellow stooped to take up a stone to robbing the cultivated land of moisture variety, as well as its bright color and and plant food that the crops require. good flavor, that make it such a favorite Most commonly the hedge is built on the parlor table. A plateful will give quoth he: "What strange country am around the orchard, possibly with the a taste of apple to a great many people I in; where the people tye up the idea that it will protect the fruit from each taking a specimen. It has a small stones, and let the dogs loose!"-Tay- thieves. Instead of this, the hedge is core, and is easily peeled, though man; apt to stir the ambition of all the boys like the aromatic flavor of apple skin in the neighborhood to try whether they and prefer to eat it without peeling cannot get through it, and we never Though a small variety, it is a very boy out of where he wanted to go. But good price in the market,

THE CHINESE CALENDAR.

The Chinese do not compute their

fome Queer Divisions of Time and Names Applied to Them.

time by centuries, but by periods of sixty years (luck shiapsix wood); each year in this space of time has its own destroying the hedge.-American Culti- name, partly relating to the five elements adopted by the Chinese sages, viz., wood, fire, earth, mineral and water, partly connected with denominations of live creatures, such as rat, cattle, tiger, hare, etc. From the combination of these two factors into a double word results, at the same time, whether the year is a lucky or an unlucky one. If, for instance, wood and cattle meet in the name of a year, this signifies a good crop; fire and tiger prophesy a year of war. The year 1807 bore the name of dingh-dan-fire and front of the gun is an immense shield fowl-and signifies a year of peace. The Chinese attach great value to these names, and are frequently governed in their enterprise by the fact whether elevation and direction, rises, disthe name of the year implies luck or charges its projectile, and the recoil bad luck. The division of the year is a two-fold one, it being divided into twelve months and twenty-four semimonths. The latter bear the signs of the old Chinese zodiac, and are called rain water, vernal equinox, pure light, rain for the fruit, morning flush of summer, little rainy season, seed of the herbs, summer solstice, commencement of the heat, great heat, sign of autumn, end of the heat, white dew, etc. Like us, the Chinese have four seasons (mua). The months have alternately twenty-nine (weak months and thirty days (strong months); frequently leap and twenty-nine rounds from its sixmonths are introduced for the sake of equalization. According to the Chinese calendar, there are also two kinds of weeks, some of ten days and others of fifteen days, so that a month is divided either into two or three weeks. The first days of the months are designated by numbers, but the first day is also called that of the weasel and the last one that of return, every day of the full moon being styled the day of hope. The night is taken at seven deep, filled like the wall with chaff or of sweet has been much exceeded in the hours, the day at five. The counting East. In a favorable season, which is of the twelve hours, each equal to two of ours, commences at 11 o'clock at night. Frequently, however, the some such substance that will readily showed 14 and even 16 per cent. of hours are also designated by animal subjected to a similar test was struck The ensilaged corn is apt to make stock take in the water. Pack the ice on this, sugar. In such cases, however, the names; thus the midnight hour is too laxative when fed with it. The leaving a space of from 8 inches to a yield is lessened. Twenty tons of beets called the hour of the rat, while the midday hour is that of the horse. Each hour is divided into double minutes, minutes, and seconds.-Staats Zeitung.

> Only one man in 203 is over six feet in height. Many of the elephants of Abyssinia are without tusks. It is estimated that two-thirds of the male population of the world use to-

The coast line of Spain extends 1,817 miles, 712 on the Mediterranean and

A medical authority in Berlin de clares that not one of Germany's professional bicyclists has a sound heart. A Japanese bride gives her wedding presents to her parents as some slight recompense for their trouble in rearing

605 on the Atlantic.

Pupils in the public schools of Copenhagen are required to take three baths a week in the public school building, and while they are bathing their clothes are sterilized in a steam oven. The Danes object to the regulation on the ground that it makes the children discontented with their home surround-

Spruce is not commonly accounted a costly wood, but some of it may be very valuable. Spruce is largely used for the tops of stringed musical instruments, such as guitars and mandolins, the finer-grained being the more desirable. The value of rosewood depends upon its color and quality. It ranges in price from a cent and a quarter to ten cents a pound. Thirty-grain Adirondack spruce would be worth more than the finest rosewood. It might be that not one such log would be found among a thousand.

Marble Ponds of Persia.

That beautiful transparent stone called Tabriz marble, much used in the burial places of Persia and in their grandest edifices, consists of petrified water of ponds in certain parts of the country. This petrifaction may be traced from its commencement to its termination; in one part the water is clear, in a second it appears thicker and stagnant, in a third quite black, and in its last stage it is white like frost. When the operation is complete a stone thrown on its surface makes no impression, and one may walk over it without wetting one's shoes. The substance thus produced is brittle and transparent, and sometimes richly striped with red, green and copper color. So much is this marble, which may be cut into large slabs, looked upon as a luxury that none but the king, his sons and persons specially privileged are permitted to take it.

When Napoleon Slept in Peter's Bed. Peter the Great hated Moscow, and, above all, that stronghold of Oriental intrigue and moral darkness, the Kremlin. If I remember right, says a writer in the Louisville Courier-Journal, he never inhabited the palace, within its walls after he was a child. The old palace is a network of incredibly small. low, ill-ventilated rooms, some little bigger than closets, painted in greens, blues and reds, after the Swedish fashion; rooms which seem, even to-day, to

reek of plots, intrigue and murder. Napoleon, always a trifle theatrical, insisted on sleeping in the bed of Peter the Great when he occupied the Kremlin in 1812. The bed of the boy Peter saw the hedge that could keep an active | productive apple, and always brings a | fitted the hero of Austerlitz to a nicety. It is a very abbreviated couch. In the same roof.

very heart of this Orienta! palace, with no window which gives on the outer day and the open air, is the terem, or

women's quarters. The ladies, even the Tsaritza and the sisters of the Tsar, were only permitted to look down into the hall of coronation through a carved wooden lattice, just as ladies do in the East. When they went out it was in a curtained litter. When Peter mounted the throne of the Tsars the women of Russia were Orientals, imprisoned more rigorously than the ladies of Constantinople to-day.

Disappearing Gun Carriages. The disappearing carriages are built in accordance with any one of a number of mechanical principles; but, whatever system be employed, the practical operation is the same. In of sand and concrete presenting no projection or angles which would reveal its location. Behind this the gun lies hid. It is loaded, given the proper

returns it to its hidden position. To test the value of such mountings the English conducted experiments at Portland in 1885. A pit was dug in the natural slope of a hill, and in this plt a wooden model of a large gun was mounted upon a disappearing carriage. It was arranged to appear for half a minute at intervals of three minutes, emit a puff of smoke and disappear. The Hercules at eight hundred yards fired in ten minutes sixty-nine hundred and ten rounds from the machine guns pounders. The gun stuck at the seventh minute and could not be hauled down. In spite of this it was struck only sixteen times, and had it been steel the effect would have been simply to scratch the paint. Besides this, twenty-eight ten-inch shells were fired at it from a distance of twenty-five hundred yards and no hits were made, the shell striking from three hundred yards short to three hundred yards over, and from one hundred and twenty yards left to one hundred and thirty yards right. This was under circumstances unfavorable to the gun, since it did not return the fire. A fixed gun over two hundred times.

Corn Bread in the South.

The way corn bread is prepared in the South places it among the dainties to a man who loves good things, and if people do not grow fat and large on it the reason is not forthcoming. For breakfast, besides the biscuits, there is set near the head of the family a plate upholding a thin square of egg bread, with a crust as brown as oysters fried in the French market at New Orleans. At noon there is nothing that goes so well with turnip greens and jowl, and later with beans and well-done cabbage, as the corn pone-brittle of crust and with a crumb that melts in the mouth. For the even ing meal-it's supper and not dinner in the country-one's mouth is set to watering as soon as he approaches the table by a stack of steaming and buttered corn batter cakes. Why shouldn't one grow robust where such things tempt in abundance. The old "cullud gemman" was but showing a fine appreciation when he enthusiastically exp

"Yeh, day's many things ter make & pusson feel happy an' 'tented ober yondah in Canaan, but ef I can dess alles have some er de brown corn bread Lucindy cooks w'en I crosses de Jurdon dat will be good ernuff foh me!"

What American Simplicity Means. Baron Pierre de Coubertin writes an article for the Century on "Building Up a World's Fair in France." Baron Coubertin says: Not long ago I read in a French newspaper that the Emperor William, while studying in detail the conduct of the Spanish-American war, had been particularly impressed by the excellence of the citizen soldiery of the United States and by the efficient aid which they rendered the regular troops. This, however, was no surprise to me. for I have long been of the opinion that, even in the art of war, the thousand and one complications with which the old world is saddled are in no wise indispensable, and that, although it may not be possible to improvise soldiers. there should be little difficulty in making good soldiers out of free citizens. In short, we see that though Europe. through all phases of national exist. ence, has remained complicated, America has retained its original simplicity. which, indeed, is the chief characteristic of transatlantic civilization, and gives it just that plasticity, that possibility of progress, that rapidity of realization, which makes it a civilization superior in many points to ours.

Whre Does Papa Com . In? The Leipzig Tageblatt devotes a column to the marriage market. An advertisement published lately was as follows: "A son, elderly, solid and serious, is seeking for his father (a strict and solid man in a quiet business) an alone-standing widow and maiden with some ready money. Offers, with full statement of particulars, to be addressed -.... The son can be interviewed by appointment between the hours of 9 and 11."

A Worldly Habit.

Fellows-You seem to forget that the world owes every man a living. Bellows-No, I don't, but I've discov-

ered that it has imbibed the human habit of not paying its debts.-Richmond Dispatch.

Fire from Meteor.

A meteoric stone weighing four tons fell on a warehouse in Flume, Austria. and set it on fire. The stone crashed through the house and was found buried in the cellar.

The surprising thing about Heaven is that it remains a heaven with so many different women living under